

What is claimed is:

- 1     1.     A pallet comprising:  
2                 a frame;  
3                 at least one rail secured to said frame, said at least one rail having a rail slot;  
4                 and  
5                 a pin mechanism slidably received in said slot, said pin mechanism having  
6                 a pallet pin that is moveable along the entire length of the slot
  
- 1     2.     The pallet according to claim 1, wherein said pallet pin is moveable between a  
2                 position flush with said frame to a position substantially perpendicular with respect  
3                 to said frame.
  
- 1     3.     The pallet according to claim 1, wherein said pin mechanism comprises:  
2                 a slide plate slidably received in said slot, said slide plate having at least one  
3                 outwardly extending dowel pin;  
4                 a stub coupled to said slide plate;  
5                 a collar rotatably carried by said stub, said collar having at least one bore that  
6                 receives said dowel pin, wherein said pallet pin is secured to said collar;  
7                 a cam mechanism secured to said stub, said cam mechanism having a cam  
8                 slot;  
9                 a cam pin secured to said stub and slidably extending through said cam slot;  
10                and  
11                a spring carried by said stub and interposed between said collar and said slide  
12                plate, wherein movement of said cam pin from a locked position allows pivotable  
13                movement of said collar and slidable movement of said slide plate.
  
- 1     4.     The pallet according to claim 1, further comprising:  
2                 a plurality of feet downwardly extending from said frame for nesting said  
3                 frame within an adjacent frame.
  
- 1     5.     The pallet according to claim 1, further comprising:

2                   a stop assembly slidably received in said slot to allow repeatable re-  
3                   positioning of said pin mechanism anywhere in said slot.

1       6.       A pin pallet comprising:  
2                   a frame;  
3                   at least one rail secured to said frame, said at least one rail having a slot; and  
4                   a pin mechanism slidably received in said slot, said pin mechanism having  
5                   a pallet pin moveable along the entire length of said slot, wherein said pin  
6                   mechanism includes a cam mechanism for selectively clamping and unclamping said  
7                   pin mechanism to said at least one slot.

1       7.       The pin pallet according to claim 6, wherein said cam mechanism selectively secures  
2                   said pallet pin in a first position and a second position.

1       8.       The pin pallet according to claim 7, wherein said pin mechanism comprises:  
2                   a locking plate received within the interior of said at least one rail;  
3                   a slide plate positioned on the exterior of said at least one rail, and adapted  
4                   to slide within said slot;  
5                   a mounting stub extending through apertures in said locking plate and said  
6                   slide plate and coupled to said locking plate;  
7                   a pin collar provided at one end of said pallet pin, said pin collar having a pin  
8                   collar bore adapted to receive said mounting stub;  
9                   a handle assembly including a handle and a handle collar having a handle  
10                  collar bore adapted to receive said mounting stub;  
11                  a spring carried by said mounting stub, and interposed between said pin  
12                  collar and said slide plate; and  
13                  said cam mechanism incorporating said mounting stub and said handle  
14                  assembly, said cam mechanism having a camming pin secured to said mounting  
15                  stub, and a curvilinear cam slot disposed on said handle collar, wherein said  
16                  camming pin and said curvilinear cam slot interact when said handle assembly is  
17                  actuated to selectively lock and unlock said cam mechanism.

- 1     9.     A pin pallet according to claim 8, wherein said pallet pin is selectively secured in  
2           said first position and said second position and said pin mechanism is clamped to  
3           said at least one rail when said cam mechanism is locked, and wherein said pallet  
4           pin is rotatable about said mounting stub and is moveable along the entire length of  
5           said slot when said cam mechanism is unlocked.
- 1     10.    The pin pallet according to claim 9, wherein as said cam mechanism is being locked  
2           by the actuation of said handle assembly, both said handle collar and said pin collar  
3           move axially along said mounting stub and inwardly relative to said at least one rail,  
4           and as said cam mechanism is being unlocked by the actuation of said handle  
5           assembly, both said handle collar and said pin collar move axially along said  
6           mounting stub and outwardly relative to said at least one rail.
- 1     11.    The pin pallet according to claim 10, said pin mechanism further including:  
2                   at least one dowel pin extending outwardly from said slide plate, and at least  
3           two locating bores positioned on said pin collar, wherein said at least one dowel pin  
4           is inserted in one of said at least two locating bores when said cam mechanism is  
5           locked.
- 1     12.    The pin pallet according to claim 10, said pin mechanism further including:  
2                   at least two dowel pins extending outwardly from said slide plate, and at  
3           least one locating bore positioned on said pin collar, wherein said one of said at least  
4           two dowel pins is inserted in said at least one locating bore when said cam  
5           mechanism is locked.
- 1     13.    The pin pallet according to claim 10, wherein said curvilinear cam slot is provided  
2           with a cam notch, said cam notch interacting with said camming pin to abruptly  
3           move said handle collar relative to said at least one rail, and insert a dowel pin  
4           extending outwardly from said slide plate into a locating bore positioned on said pin  
5           collar when said cam mechanism is being locked, and withdraw said dowel pin from  
6           said locating bore when said cam mechanism is being unlocked.

- 1 14. The pin pallet according to claim 13, wherein a rib extends along the surface of said  
2 slide plate to maintain alignment of said pin mechanism with respect to said at least  
3 one rail and parallel rails are positioned along the top and bottom edges of said  
4 locking plate to reduce friction when said pin mechanism slides along said slot.
- 1 15. The pin pallet according to claim 14, further comprising:  
2 a plurality of leg members extending downwardly from said frame for  
3 nesting said frame within an adjacent frame.
- 1 16. The pin pallet according to claim 15, further comprising:  
2 a stop assembly slidably received in said slot to allow repeatable  
3 repositioning of said pin mechanism anywhere in said slot.
- 1 17. A pin pallet for holding metal stampings during transfer comprising:  
2 a frame;  
3 at least one rail secured to said frame, said at least one rail having a slot;  
4 a pin mechanism slidably received in said slot including a locking plate  
5 received within the interior of said at least one rail, a slide plate positioned on the  
6 exterior of said at least one rail, and adapted to slide within said slot, said locking  
7 plate and said side plate having apertures therethrough, a mounting stub extending  
8 through said apertures and coupled to said locking plate, a pin collar provided at one  
9 end of said pallet pin, said pin collar having a pin collar bore adapted to receive said  
10 mounting stub, a handle assembly including a handle and a handle collar having a  
11 handle collar bore adapted to receive said mounting stub, a spring carried by said  
12 mounting stub, and interposed between said pin collar and said slide plate, and a  
13 cam mechanism incorporating said mounting stub and said handle assembly, said  
14 cam mechanism having a camming pin secured to said mounting stub, and a  
15 curvilinear cam slot disposed on said handle collar, wherein said camming pin and  
16 said curvilinear cam slot interact when said handle assembly is actuated to  
17 selectively lock and unlock said cam mechanism.

- 1      18.    A pin pallet according to claim 17, wherein said pallet pin is selectively secured in
- 2           a first position and a second position and said pin mechanism is clamped to said at
- 3           least one rail when said cam mechanism is locked, and wherein said pallet pin is
- 4           rotatable about said mounting stub and is moveable along the entire length of said
- 5           slot when said cam mechanism is unlocked.